

Purple Martin nest boxes at Buttertubs Marsh

By Staffan Lindgren (based on information from Bruce Cousens and Bill Merilees)

At our January Board meeting of Nature Nanaimo, the issue of Purple Martin nest box management at Buttertubs Marsh was discussed. I contacted Bruce Cousens and Bill Merilees for information, and this is a summary of the information obtained. Bruce indicated that the Buttertubs martin boxes, which have been in place since 2004, are of considerable conservation interest now that they support an active martin colony. While the swallow boxes have been well used, the martin boxes remained empty until first used by a pair of martins in 2015. This pair returned to establish a colony the following year, and the 8 boxes are now essentially fully occupied by martins after 6 years of continuous annual use (Figure 1).



Figure 1 Purple Martin nest boxes at Buttertubs Marsh, May 10, 2020. Photo by Lynda Stevens.

The martin Buttertubs nest boxes were built by well known local naturalist and Nature Nanaimo honorary life member Bill Merilees. They feature a unique sloped-floor 'wedge' design, with an oversized entrance. For some unknown reason they are surprisingly unpopular with, and apparently ignored by starlings. They were mounted as part of the overall complex with Tree and Violet-Green Swallow boxes, a Barn Swallow roof shelter, and the osprey pole on the old concrete military radio antenna base. Ospreys made an attempt to build a nest in 2008, but the platform has remained unused since then (Figure 2).



*Osprey at Buttertubs Marsh nesting platform, July 2008.
Photo: Peter Scaljouw*

THE BUTTERTUBS OSPREYS

This year, for the first time, it appears Ospreys have taken possession of the nesting platform that was erected at Buttertubs Marsh in early 2004.

Though some nest building occurred (see photo) it is believed these birds are juveniles, as a 'serious' nesting attempt has not taken place. Ospreys begin to nest from about 4 to 7 years of age. Next spring, if both members of this pair survive and return to Buttertubs, it is expected that a nesting attempt will take place.

The Buttertubs Marsh Conservation Area Management Plan calls for native wildlife and vegetation diversification that will enhance public wildlife viewing opportunities. The Osprey nesting platform was also designed to provide nesting opportunities for Barn, Cliff, Violet-green and Tree Swallows as well as Purple Martins. The nesting platform was constructed by staff at the Harmac (Pope and Talbot) pulp mill and put in place by a number of partners.

On your next visit to Buttertubs, take time to visit the viewing platform where an information sign provides information about Ospreys and lists the local companies that made this viewing opportunity possible.

Figure 2 From Newsletter of the Nanaimo & Area Land Trust Society, July, 2008

Several standard martin nest boxes were mounted on square aluminum poles in the marsh circa 2000-01. They were well used by Tree/Violet-Green Swallows, but not martins, for 5-10 years, presumably because the martin population had not yet recovered sufficiently to fill coastal marine colonies and provide the pressure to move them into inland freshwater sites. These nest boxes were later knocked down by floating cattail islands during winter storms and Millstone River flooding.

Unfortunately, the Buttertubs martin boxes on the antenna base were set up without a plan for future access for maintenance. That must be addressed before any inspection or maintenance work can be undertaken. When discussing the nest boxes with Bill Merilees, he stated that it would be very difficult to access the nest boxes because of how they are attached to the antenna base. The stand on the antenna base was added using a helicopter, which would clearly be beyond our means, and without some way of erecting a safe ladder to access the boxes, maintenance may be very difficult or impossible. The boxes were made of rough cedar, however, and should remain usable for at least another ten years based on experience with conventional boxes on marine pilings.

The primary reason for inspection would be to ascertain how well nest material endures wet winter conditions in that nest box type, and to check nest parasite loads, which can be substantial in nest boxes used every year. Therefore, the Buttertubs martin boxes may benefit from a maintenance check, minor repairs, and cleaning to get rid of accumulated nest parasites and old decayed nest material. Discarded nest material should be replaced with fresh nest material. It is important to minimize any changes or disturbance since Purple Martins are very sensitive to disturbance. Thus, nest box replacement, if necessary, should use the same design. A switch to a different design may cause abandonment.

From a conservation perspective, the Buttertubs colony in that rare undocumented type of nest box, on fresh water in an urban area well populated by starlings and house sparrows, is unique for western martins! It has persisted very well so far without regular maintenance, intervention, or evident starling (or other species?) competition despite their presence nearby. There has been no significant nest predation despite the absence of aerial predator guards and local presence of Barred Owls and other known nest predators, for reasons we don't understand (site features or nest box design?). Since Bruce and Charlene Lee continue to manage the Stewardship and Recovery program for Western Purple Martins in BC, they would be happy to be involved as advisors in any plans for maintenance or other interference or disturbance. The colony should not be unnecessarily disturbed, and more valuable information may be gained from this colony with more careful long-term study (including continued monitoring by Lynda Stevens).

If an initial pre-season inspection, cleaning and maintenance check is implemented and if any of the nest boxes are in poor condition and beyond repair, replacement of some or all of the original nest boxes with boxes of the same design and orientation may be justified. Addition of stucco wire aerial predator guards may be advisable, given the well documented Barred Owl presence. Owl attacks may cause colony abandonment. If possible, 2-4 similar or standard nest boxes to expand the colony slightly could also be considered. Bill Merilees has kindly provided a box of his design so we could easily build additional boxes. Furthermore, maintenance of the other swallow boxes should be done at the same time.



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Figure 3 Male Purple Martin at Buttertubs Marsh, August 18, 2020.